

Trust Sepsis Update

February 2024



County Durham
and Darlington
NHS Foundation Trust



Lisa Ward, ADN (Patient Safety) & CNIO
Kirsty McGee, AI & AKI Matron & Sepsis Lead

safe • compassionate • joined-up care



www.cddft.nhs.uk

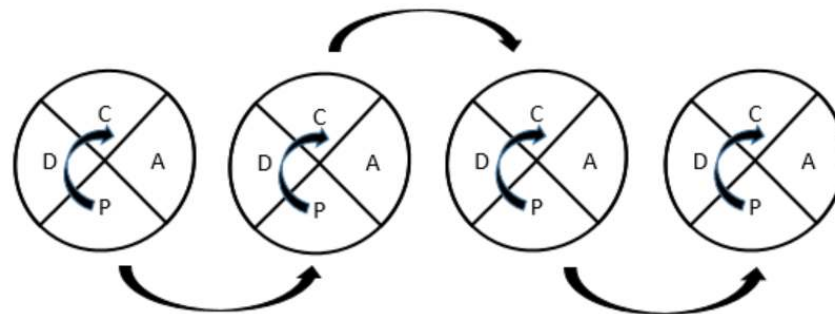


- EPR Audits demonstrating sustained drop in screening and time to antibiotics
- Learning relating to sepsis emerging in SI and Mortality reviews
- Negative Sepsis VLAD alerts
- Digital Health Team identified high number of sepsis alerts in 'lights on'

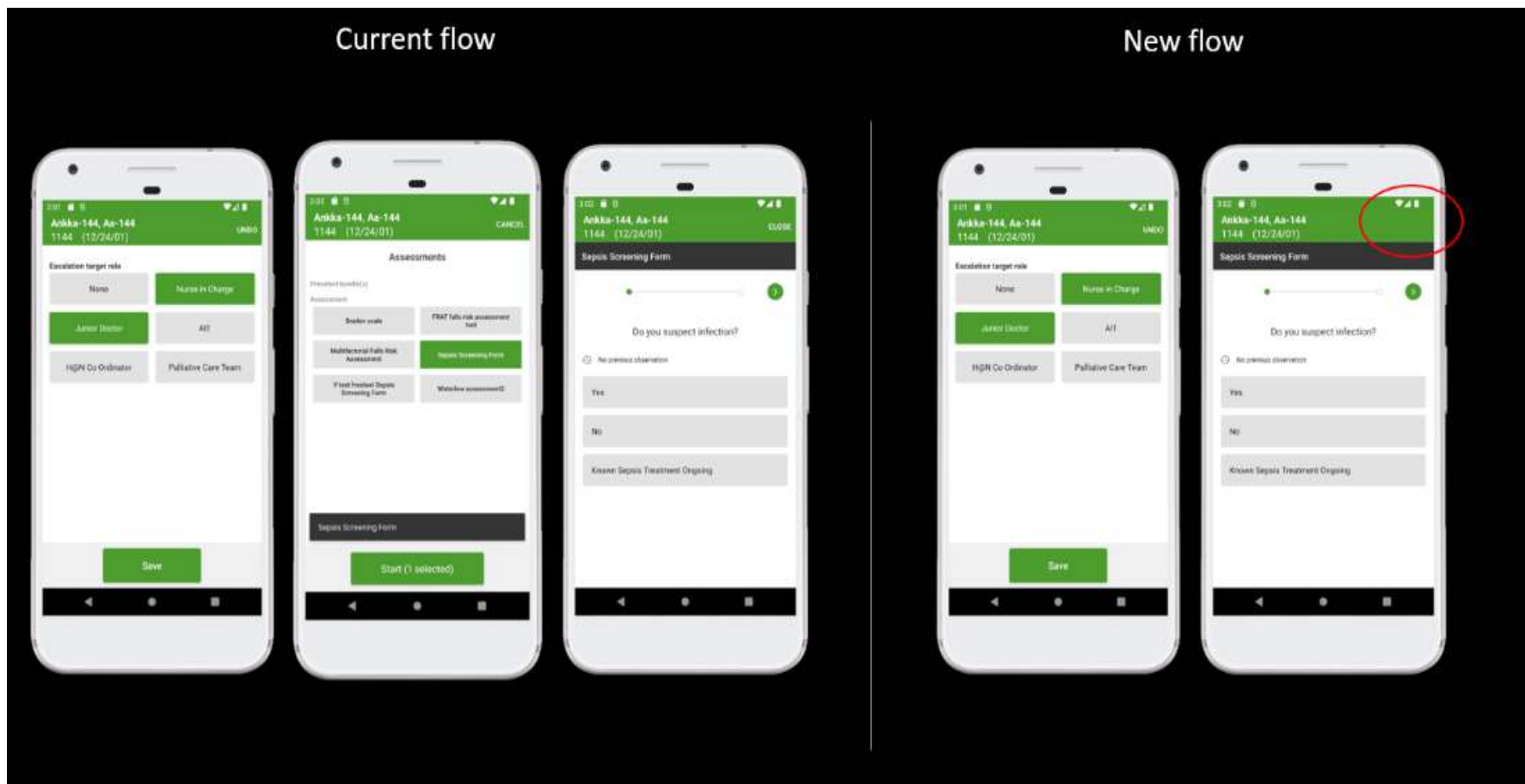
Immediate Actions Taken



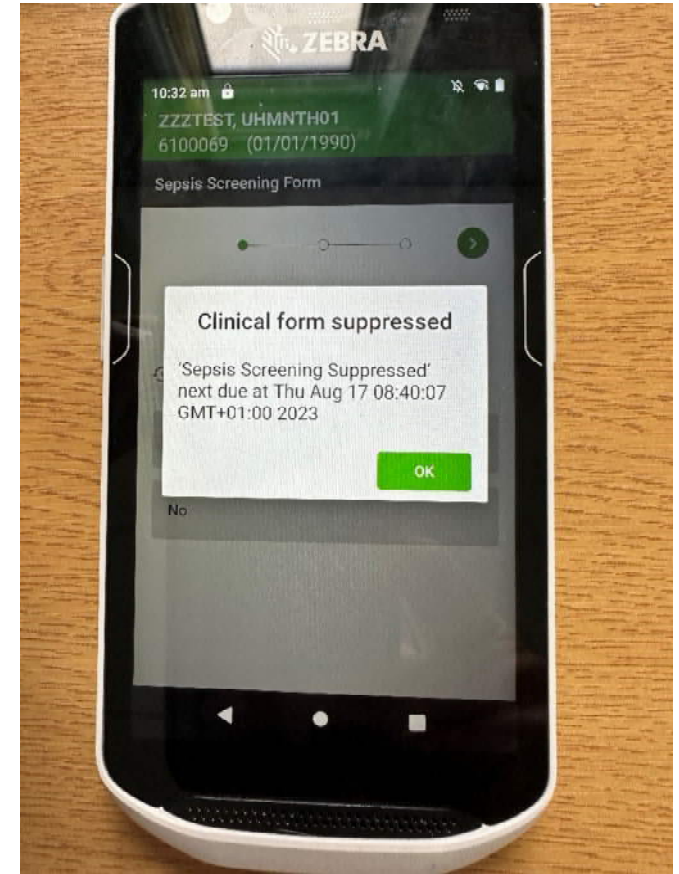
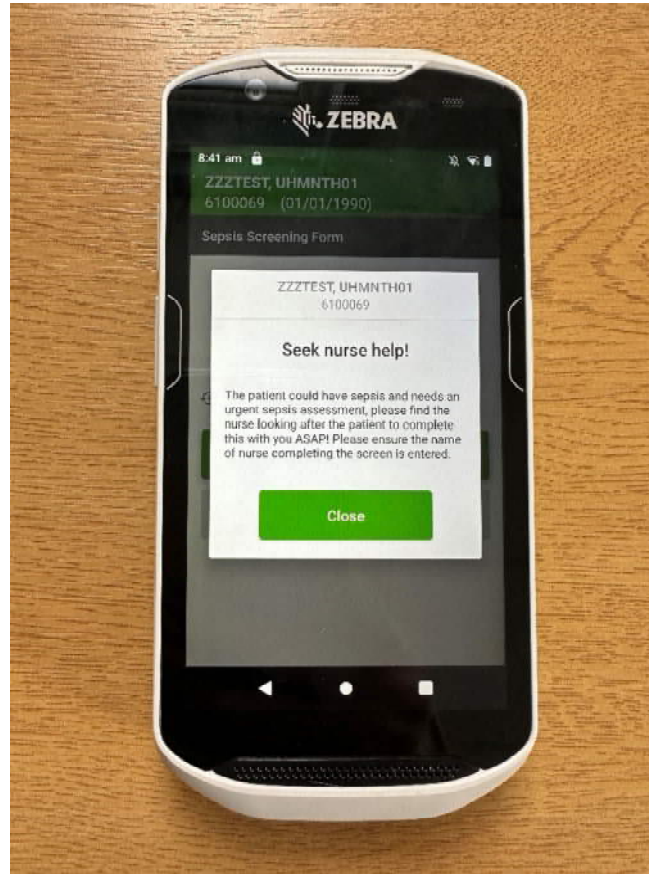
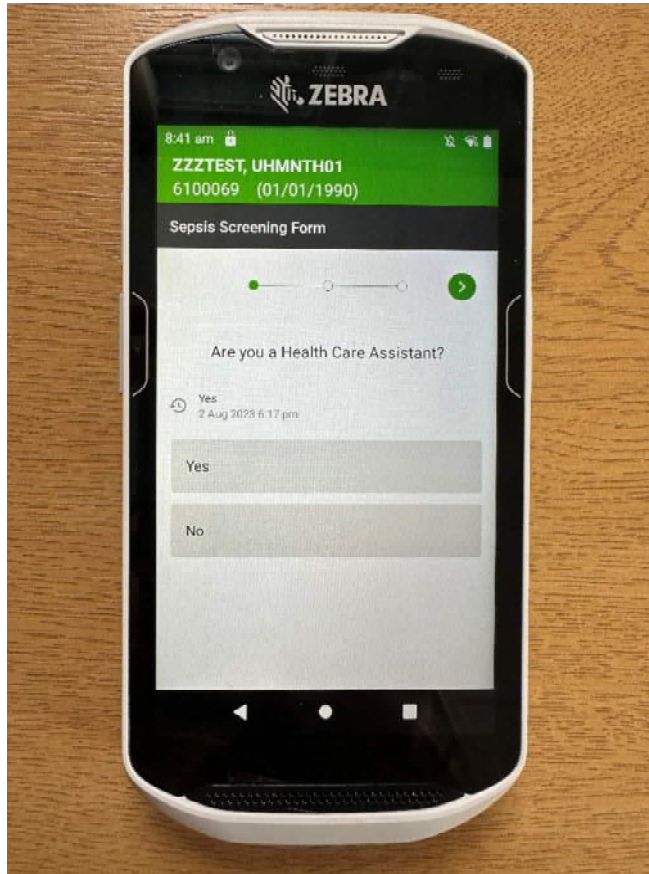
- EPR Modifications
- Clinical Education
- Establish Full Baseline Data
- Manual Sepsis Audits



EPR Modifications



EPR Modifications



Clinical Education

Toilet Door Tips Summer 2023

Back of House

Do you know the maximum observation frequencies?

Medical Wards	Observation Frequency
0-2	12 hourly
3-5	6 hourly
6-8 (or any 3 in single parameter)	60 minutes
9-10	30 Minutes
Any admission for first 24 hours	4 Hourly

Are your fluid balances hourly and accurate?

Acutely unwell patients and those with an AKI need an hourly accurate fluid balance to monitor renal function.

Sepsis -> those with poor urine output or hypotension despite fluid resuscitation should be escalated for a critical care review

DRIP OR DRINK?

Are your patients drinking enough?

KNOW YOUR SEPSIS SIX

1. OXYGEN SATURATION
2. TAKE BLOOD CULTURES
3. GIVE IV ANTIBIOTICS
4. GIVE A FLUID CHALLENGE
5. MEASURE LACTATE
6. MEASURE URINE OUTPUT

water

0-2	Observations require frequent to hourly. You have clinical concerns please inform your medical team.
3-5	Registered Nurse to assess the patient, decide if increased observation frequency is required, or if escalation to prior doctor or Acute Intervention team is required.
6-8	Registered Nurse to check observations and undertake an ABCDE assessment, consider commencing fluid balance with a repeat urine output of 1.5ml/kg/h.
9-10	Registered Nurse to check observations. THIS IS A MEDICAL EMERGENCY. Call DDO and notify a Medical Emergency Team response. Commence hourly fluid balance and consider catheterisation. Registered nurse should remain with the patient and begin an ABCDE assessment.

Doctors must log on to Connect Messenger alongside Medanets to ensure they are notified of unwell patients and alerts on your ward during the day

One Chance to Get it Right

Palliative Care Key Messages

- Please start syringe drivers promptly when prescribed
- Syringe driver observations are being rolled out on EPR - The EPR team will show you how to complete these
- Comfort observations need to be completed every 4 hours as a minimum by a registered nurse. If the patient is symptomatic with high comfort observations, they need to be escalated for appropriate interventions
- Ensure medications are rationalised at EOL and stop/continue as needed

Toilet Door Tips Autumn 2023

Are you screening for Sepsis?

Screen ALL patients with a NEWS2 score of 3, CRF scoring 3 in a single parameter. If infection is suspected or confirmed (temp >38°C or <36°C)

FLUID BALANCE

History, Examin, Investigations. Which patients need a fluid balance?

- Dehydrating patients and those scoring Amber on the EWS
- Renal (or Late/Late/Late Kidney Injury (AKI))
- Excessive output, i.e. vomiting, Diarrhoea, stomal/haemostomy, and drains
- Paediatric or neonatal neonatal feeding or are nil by mouth
- Fluid-restricted patients i.e. cardiac failure
- When to escalate a patient's fluid balance?
 - Escalate patients who have a urine output <0.5mg/kg/hour for 2 consecutive hours
 - New diagnosis AKI stage 2 and 3
 - Deranged LACTs

MATERNITY OBSERVATIONS

Please can staff alert the AT team to any pregnant patients or patients who have had a baby within 6 weeks of admission on their wards.

SEPSIS SIX

1. Give supplemental oxygen. Ask for SATs about NEWS2 score if a risk to patient
2. Take blood cultures
3. Give IV antibiotics
4. Give a fluid challenge
5. Measure lactate
6. Measure urine output

JUST ASK, COULD IT BE SEPSIS??

LOG INTO PODS

Please can the NIC of each shift send a minimum of 2 Doctor log into messenger and medians for day time alerts and tasks.

FALLS POLICY

- Ensure all nursing shift assessments are completed within 4 hours of admission or transfer to another area
- Please risk assess all patients over 65 as well as those patient's deemed at a higher risk for falls
- If a patient should fall in hospital a immediate assessment using the ABCDE approach and GCS must be carried out by an RN or Doctor before being moved and a full set of observations must be completed.
- Please ensure a Post Falls Review is completed as stated in the Post Falls Checklist

Call 4 Concern

Are you concerned about a patient's condition?

Are you concerned about a patient's condition?

Please discuss and allocate staff at handoff

Learning from Excellence

If you see individual examples of excellence, great teamwork or staff going above and beyond remember to complete an excellence report!

Messages from Pathology

When bagging up samples please remember

- RED bags for URGENT sample. BLUE bags for ROUTINE samples. BLUE bags for routine Microbiology samples, unless URGENT then please put in a RED bag
- When ordering multiple samples from one specimen please ensure they are all ordered on one sample before clicking done
- Please click collect after samples are taken or the lab won't receive requests
- If an add on test is required go to requests/care plan tab - laboratory - right click on to sample you wish to add on to - order information - additional information - note accession number, time and date. Go back to the "add tab" at the top of the screen - type in add on lab - press ok - put in additional test(s) required - complete yellow boxes - sign and refresh.

JANUARY 2024 WINTER TOILET DOOR TIPS

Are your Fluid balances hourly and up to date?

Acutely unwell patients and those with an AKI need an hourly, accurate fluid balance to monitor renal function.

Sepsis those with poor urine output or hypotension despite fluid resuscitation should be escalated for a critical care review

SEPSIS 6

1. Give supplemental oxygen and aim for sats > 94% (88-92% if at risk of hypercarbia)
2. Take blood cultures
3. Give IV antibiotics
4. Give IV fluid Challenge
5. Measure Lactate
6. Measure Urine

JUST ASK, COULD IT BE SEPSIS??

Indications for Blood Cultures

Sepsis Bundle Triggered

- Development of unexplained confusion, Tachycardia with or without hypotension (shock), Unexplained deterioration in the patient's condition
- The core temperature is outside of the normal range
- The temperature cut off for neutropenic patients is 37.5° C

Stock is available in the pathology lab 24/7 at DMH and UHND. Stock should be kept topped up by ward teams.

EPR Nursing Assessments

On admission nursing and risk assessments need to be completed within 4 hours. This needs to be completed via Medanets on your handheld device and not Powerchart.

medanets DIGITAL CARE & HUMAN TOUCH

CPE SCREENING

Any patients who meet the following criteria should be swabbed on the ward for CPE:

1. Previous CPE positive
2. CPE contact
3. Any hospital admission in the uk or abroad with in the last 12 months.

Rectal swabs or stool samples can be used for screening.

3 KEY EPR Messages for documentation

1. Document PMH in Problem List
2. Ensure diagnosis is clearly documented in the Problem list.
3. In PTWR use terms Probable, presumed, and Treat as. Avoid the terms likely, Impression, Suspected.
4. For documenting ongoing care Use admission clerking template

Use free text (not progression note) for ongoing care Use Inpatient documentation summary for discharge Mpage

Learning from Excellence:

If you see individual examples of excellence, great teamwork or staff going above and beyond remember to complete an excellence report!

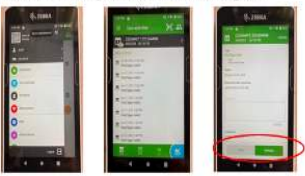


More Education.....

How often must I complete vital signs?


Medical Wards	Minimum Observation Frequency
0-2	12 hourly
3-5	6 hourly
6-8 (or any 3 in single parameter)	60 minutes
9+	30 Minutes
Any admission for first 24 hours	4 Hourly

How do I complete a set of vital signs?




Select your patient, go into care activities and select the vital signs for the correct time due. Press perform

How do I escalate vital signs I am concerned about?




During 9-5pm Mon – Fri escalations are automated to the Nurse in Charge and Junior Dr. You can add or deselect accordingly by pressing on the green selected option. You should also speak to the clinical team as soon as possible. Out of hours escalations are routed to the H@N Co-ordinator

How do I know when vital signs are due?




How do I know if vital signs are overdue?



A clock face will show on the dashboard on top of the most recent NEWS score (grey colour) You should not wait for this clock to appear – if a clock appears its late!

As a Nurse in Charge or Doctor how do I receive escalations about patients?



You must log into Care Aware Connect Messenger and select your role at the start of your shift.


NHS
County Durham and Darlington
NHS Foundation Trust

07:54 5G

#TeamCDDFT
Lisa Ward · 5 Aug ·

Polite reminder....It is essential that staff use the Medanets application to enter physiological observations in all in-patient areas and ED's rather than entering these directly into powerchart. Using the handheld devices means that this can be completed at the patient's bedside, enables the user to see key messages and guidance if there is something wrong and ensures that escalations can occur when required. You must never write observations on paper and transcribe this later.

We have developed some guides which may offer assistance. Thanks for your help and support in keeping our patients safe.



How often must I complete vital signs?

How do I complete a set of vital signs?

How do I escalate vital signs I am concerned about?

How do I know when vital signs are due?

How do I know if vital signs are overdue?

As a Nurse in Charge or Doctor how do I receive escalations about patients?

Write a comment...

Appropriate Indications for Taking Blood Cultures

NHS
County Durham and Darlington
NHS Foundation Trust

- Chills or rigors
- Unexplained deterioration in the patient's condition
- Development of unexplained confusion
- There are focal signs of infection
- Tachycardia with or without hypotension (shock)
- Sepsis Bundle Triggered.
- The temperature cut off for neutropenic patients is 37.5° C
- A very high or very low white blood cell count
- If treatment with broad spectrum IV antibiotics is being initiated
- The core temperature is outside of the normal range.

Stock is available in the pathology lab 24/7 at DMH and UHND. Stock should be kept topped up by ward teams.

stop sepsis save lives

THE SEPSIS SIX

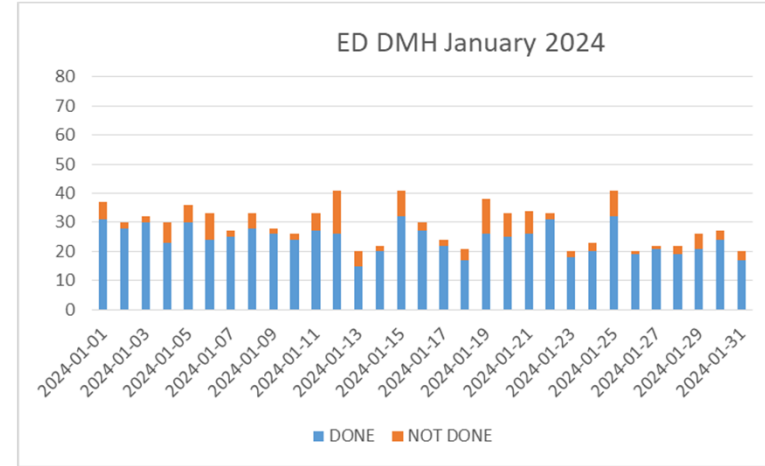
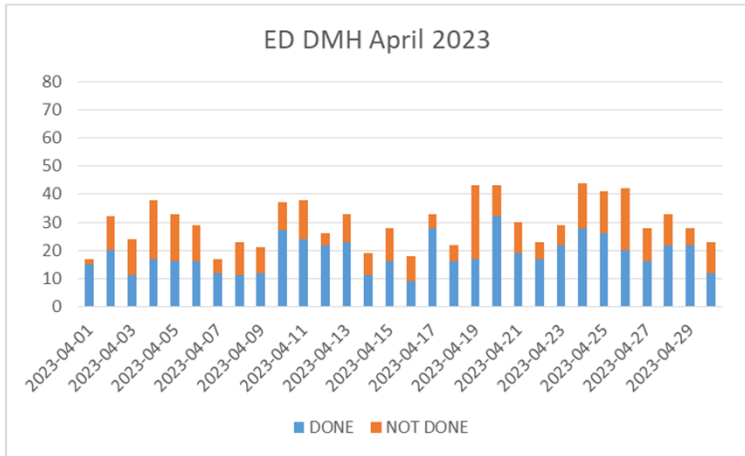
1. Give O2 to keep SATS above 94%
2. Take blood cultures
3. Give IV antibiotics
4. Give a fluid challenge
5. Measure lactate
6. Measure urine output

JUST ASK
COULD IT BE SEPSIS?
IT'S A SIMPLE QUESTION, BUT IT'S A LIFE OR DEATH QUESTION.

safe • compassionate • joined-up care

www.cddft.nhs.uk

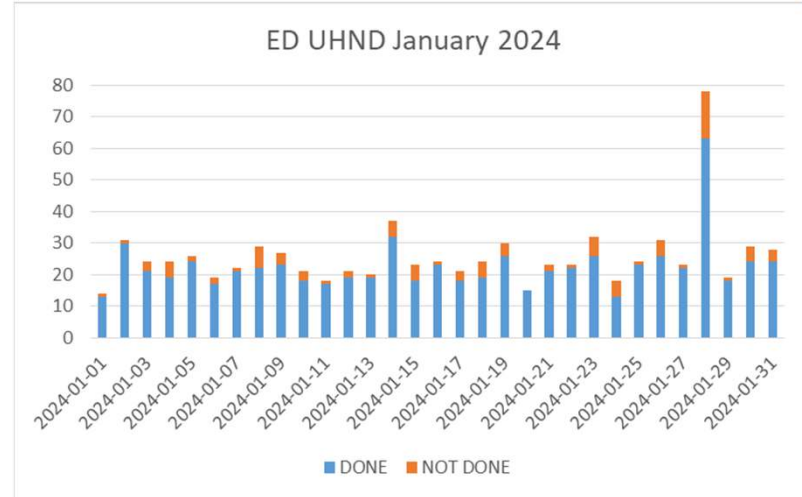
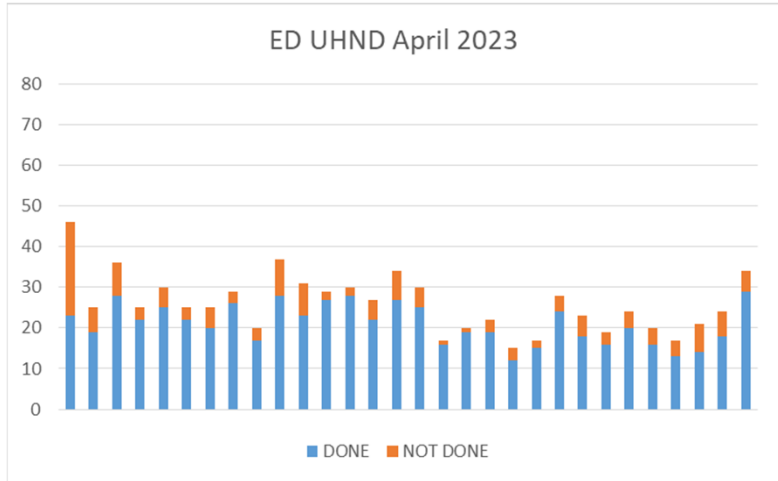
Sepsis Screening via Medanets



ORDER DT	DONE	NOT DONE	DMH ED %
2023-04-01	15	2	88%
2023-04-02	20	12	63%
2023-04-03	11	13	46%
2023-04-04	17	21	45%
2023-04-05	16	17	48%
2023-04-06	16	13	55%
2023-04-07	12	5	71%
2023-04-08	11	12	48%
2023-04-09	12	9	57%
2023-04-10	27	10	73%
2023-04-11	24	14	63%
2023-04-12	22	4	85%
2023-04-13	23	10	70%
2023-04-14	11	8	58%
2023-04-15	16	12	57%
2023-04-16	9	9	50%
2023-04-17	28	5	85%
2023-04-18	16	6	73%
2023-04-19	17	26	40%
2023-04-20	32	11	75%
2023-04-21	19	11	63%
2023-04-22	17	6	74%
2023-04-23	22	7	76%
2023-04-24	28	16	64%
2023-04-25	26	15	63%
2023-04-26	20	22	48%
2023-04-27	16	12	57%
2023-04-28	22	11	67%
2023-04-29	22	6	79%
2023-04-30	12	11	36%
Grand Total	559	336	62%

ORDER DT	DONE	NOT DONE	DMH ED %
2024-01-01	31	6	84%
2024-01-02	28	2	93%
2024-01-03	30	2	94%
2024-01-04	23	7	77%
2024-01-05	30	6	83%
2024-01-06	24	9	73%
2024-01-07	25	2	93%
2024-01-08	28	5	85%
2024-01-09	26	2	93%
2024-01-10	24	2	92%
2024-01-11	27	6	82%
2024-01-12	26	15	63%
2024-01-13	15	5	75%
2024-01-14	20	2	91%
2024-01-15	32	9	78%
2024-01-16	27	3	90%
2024-01-17	22	2	92%
2024-01-18	17	4	81%
2024-01-19	26	12	65%
2024-01-20	25	8	76%
2024-01-21	26	8	76%
2024-01-22	31	2	94%
2024-01-23	18	2	90%
2024-01-24	20	3	87%
2024-01-25	32	9	78%
2024-01-26	19	1	95%
2024-01-27	21	1	95%
2024-01-28	19	3	86%
2024-01-29	21	5	81%
2024-01-30	24	3	89%
2024-01-31	17	3	85%
Grand Total	754	149	84%

Sepsis Screening via Medanets



ORDER DT	DONE	NOT DONE	UHND ED %
2023-04-01	23	23	50%
2023-04-02	19	6	76%
2023-04-03	28	8	78%
2023-04-04	22	3	88%
2023-04-05	25	5	83%
2023-04-06	22	3	88%
2023-04-07	20	5	80%
2023-04-08	26	3	90%
2023-04-09	17	3	85%
2023-04-10	28	9	76%
2023-04-11	23	8	77%
2023-04-12	27	2	93%
2023-04-13	28	2	93%
2023-04-14	22	5	81%
2023-04-15	27	7	79%
2023-04-16	25	5	83%
2023-04-17	16	1	94%
2023-04-18	19	1	95%
2023-04-19	19	3	86%
2023-04-20	12	3	80%
2023-04-21	15	2	88%
2023-04-22	24	4	86%
2023-04-23	18	5	78%
2023-04-24	16	3	84%
2023-04-25	20	4	83%
2023-04-26	16	4	80%
2023-04-27	13	4	76%
2023-04-28	14	7	67%
2023-04-29	18	6	75%
2023-04-30	29	5	85%
Grand Tota	631	149	81%

ORDER DT	DONE	NOT DONE	UHND ED %
2024-01-01	13	1	93%
2024-01-02	30	1	97%
2024-01-03	21	3	86%
2024-01-04	19	5	79%
2024-01-05	24	2	92%
2024-01-06	17	2	89%
2024-01-07	21	1	95%
2024-01-08	22	7	76%
2024-01-09	23	4	85%
2024-01-10	18	3	86%
2024-01-11	17	1	94%
2024-01-12	19	2	90%
2024-01-13	19	1	95%
2024-01-14	32	5	86%
2024-01-15	18	5	78%
2024-01-16	23	1	96%
2024-01-17	18	3	86%
2024-01-18	19	5	79%
2024-01-19	26	4	87%
2024-01-20	15		100%
2024-01-21	21	2	91%
2024-01-22	22	1	96%
2024-01-23	26	6	81%
2024-01-24	13	5	72%
2024-01-25	23	1	96%
2024-01-26	26	5	84%
2024-01-27	22	1	96%
2024-01-28	63	15	81%
2024-01-29	18	1	95%
2024-01-30	24	5	83%
2024-01-31	24	4	86%
Grand Tota	696	102	87%

Sepsis Audit January 24 – EPR Vs Manual

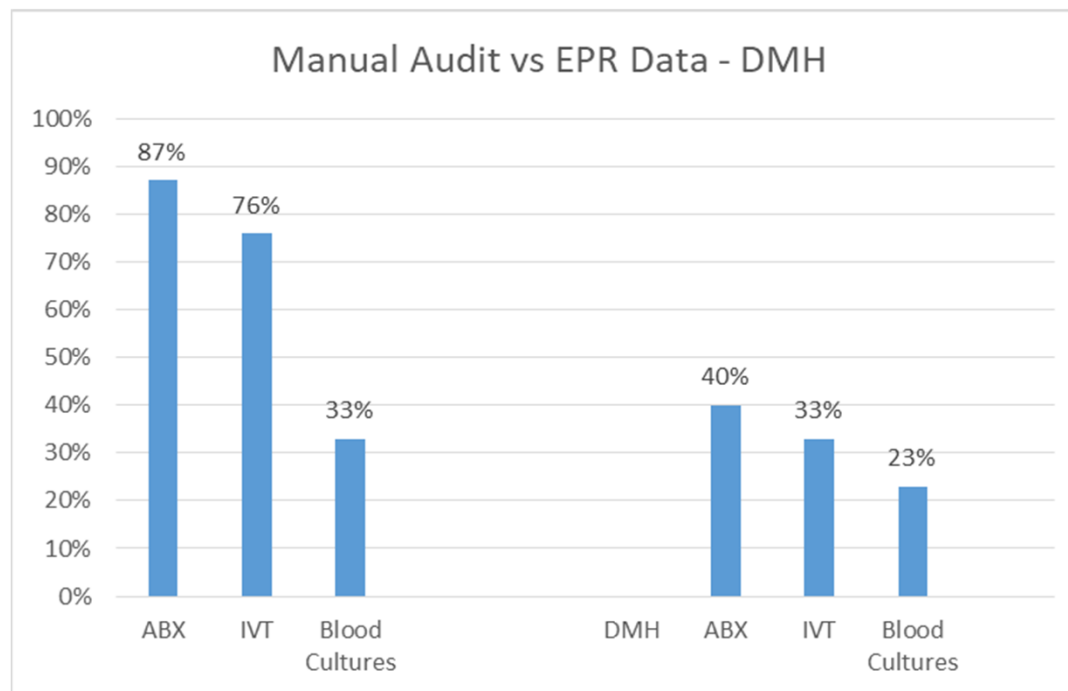
EPR Extraction ANTIBIOTICS COMPLIANCE	EPR Extraction IV FLUIDS	EPR Extraction BLOOD CULTURES	Manual Review	Manual Abx compliance	Manual IV Fluid compliance	Manual Blood Culture Compliance	02 Administered	Sepsis Diagnosis added to the problem list
NO	NO	YES	? Stroke, CT head NAD, treat as sepsis	No	No	NO	YES	yes
YES	NO	NO	Consultant advise not to treat with abx, CT head NAD, LP NAD, treated as	Not applicable	Not applicable	Not applicable	Not clinically indicated	No
NO	NO	NO	Met criteria for sepsis in ED, not screened properly, patient not septic, NOF	Not applicable	Not applicable	Not applicable	Not clinically indicated	No
NO	No	NO	Met criteria for Sepsis in ED, patient treated for frailty, ? Undiagnosed COPD	Not applicable	Not applicable	Not applicable	Not clinically indicated	No
NO	No	NO	Screen on 1.1.24, abx already commenced on 30.12.23	YES	No	No	Not indicated at first screen	No
NO	NO	No	Not sepsis, patient GI bleed	Not applicable	Not applicable	Not applicable	Not clinically indicated	No
No	No	No	Not sepsis, GI bleed	Not applicable	Not applicable	Not applicable	Not clinically indicated	Yes
No	No	No	Patient had chemo, triggered sepsis, screened correctly, abx & IVT given	Yes	Yes	No	Not clinically indicated	No
Yes	Yes	NO	Screened correctly, patient met criteria	Yes	Yes	No	Not clinically indicated	No
Yes	Yes	No	Fainting episode, not sepsis, received tx within timeframe	Yes	Yes	No	Not clinically indicated	No

Sepsis 6 compliance within 1 hour

EPR Data Vs Manual Audit

DMH	ABX	IVT	Blood Cultures
EPR Data	40%	33%	23%

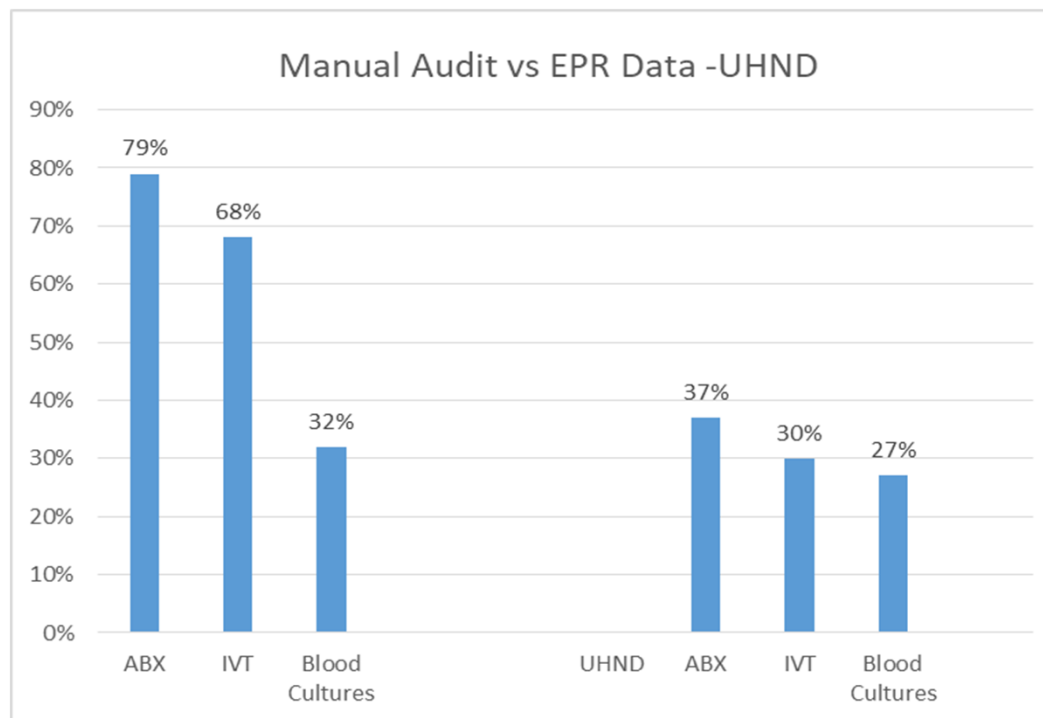
DMH	ABX	IVT	Blood Cultures
Manual Audit	87%	76%	33%



EPR Data Vs Manual Audit

UHND	ABX	IVT	Blood Cultures
EPR Data	37%	30%	27%

UHND	ABX	IVT	Blood Cultures
Manual Audit	79%	68%	32%



Sepsis In ED

NHS
County Durham
and Darlington
NHS Foundation Trust



Confirmed Sepsis = Positive Sepsis Screen

This patient requires a review by the clinician and treatment prescribing if appropriate.

Wording to change to ?Sepsis – Dr Needed



Not Sepsis = Negative Sepsis Screen

This patient requires a review by the clinician and consider treatment for Infection or other diagnosis if appropriate



Sepsis = Sepsis Confirmed and Care plan commenced

- Monthly Sepsis meetings
- Continue with targeted improvement work with all staff
- Blood Culture Task & Finish Group
- Continue Manual Auditing
- Trial sepsis box on one ward at UHND to measure sepsis compliance back of house
- Patient Story and Public Sepsis Engagement Event

